In the claims:

1. (Original) A method for treating a central nervous system neoplasm of a patient, comprising: instilling into an anatomic area of a patient affected by a central nervous system neoplasm a therapeutically effective amount of a composition comprising a biocompatible polymer and an antineoplastic agent, wherein said polymer comprises phosphorous-based linkages.

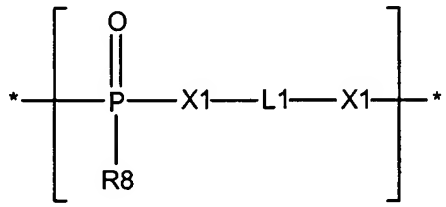
2. (Original) The method of claim 1, wherein said polymer is biodegradable.

3. (Original) The method of claim 1, wherein said instillation does not cause a deleterious amount of inflammation in the central nervous system of said patient.

4. (Original) The method of claim 1, wherein said antineoplastic agent is an antineoplastic taxane.

5. (Original) The method of claim 4, wherein said antineoplastic taxane is paclitaxel.

6. (Original) The method of claim 1, wherein said polymer comprises one or more monomeric units represented by the following formula V:




Formula V

wherein, independently for each occurrence of said monomeric unit:

X1, each independently, represents -O- or -N(R7)-;

R7 represents -H, aryl, alkenyl or alkyl;

L1 represents any chemical moiety that does not materially interfere with the biocompatibility of said polymer;

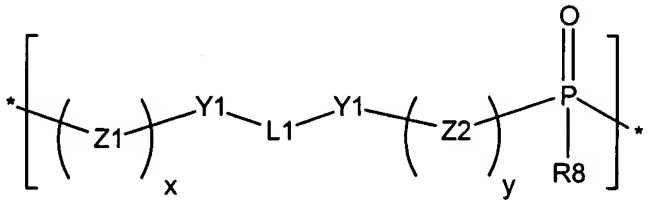
R8 represents -H, alkyl, -O-alkyl, -O-cycloalkyl, aryl, -O-aryl, heterocycle, -O-heterocycle, or -N(R9)R10;

R9 and R10, each independently, represent a hydrogen, an alkyl, an alkenyl, -(CH2)m-R11, or R9 and R10, taken together with the N atom to which they are attached complete a heterocycle having from 4 to about 8 atoms in the ring structure;

m represents an integer in the range of 0-10; and

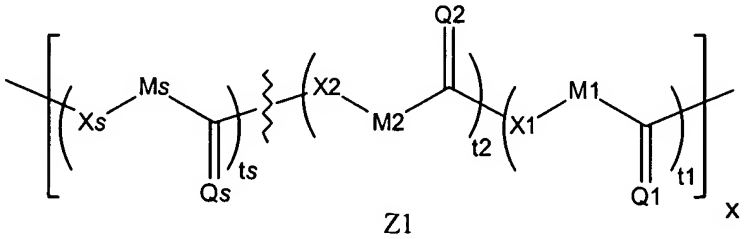
R11 represents -H, alkyl, aryl, cycloalkyl, cycloalkenyl, heterocycle or polycycle.

7. (Original) The method of claim 1, wherein said polymer comprises one or more monomeric units represented by the following formula VI:

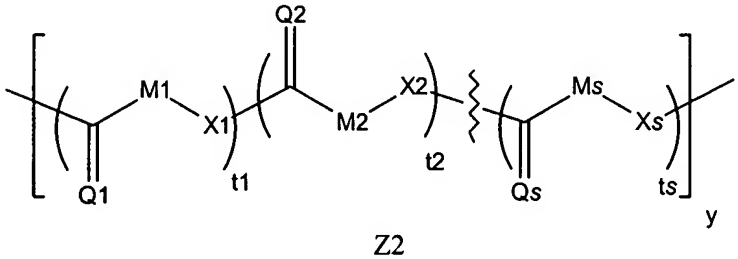



Formula VI

wherein Z1 and Z2, respectively, for each independent occurrence is:




Z1




Z2

wherein, independently for each occurrence of said monomeric unit:

Q1, Q2 ... Q*s*, each independently, represent -O- or -N(R7);

X1, X2 ... X*s*, each independently, represent -O- or -N(R7);

R7 represents -H, aryl, alkenyl or alkyl;

the sum of t1, t2 ... t*s* is an integer and equal to at least one or more;

Y1 represents -O-, -S- or -N(R7)-;

x and y are each independently integers from 1 to about 1000 or more;

L1 represents any chemical moiety that does not materially interfere with the biocompatibility of said polymer;

M1, M2 ... M*s* each independently, represents any chemical moiety that does not materially interfere with the biocompatibility of said polymer;

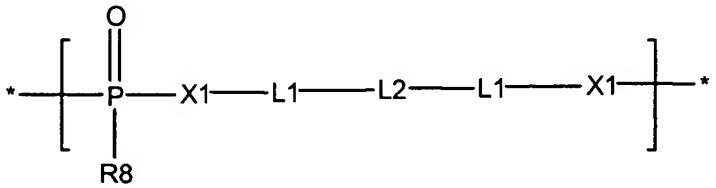
R8 represents -H, alkyl, -O-alkyl, -O-cycloalkyl, aryl, -O-aryl, heterocycle, -O-heterocycle, or -N(R9)R10;

R9 and R10, each independently, represent a hydrogen, an alkyl, an alkenyl, -$(CH_2)_m$-R11, or R9 and R10, taken together with the N atom to which they are attached complete a heterocycle having from 4 to about 8 atoms in the ring structure;

m represents an integer in the range of 0-10; and

R11 represents -H, alkyl, aryl, cycloalkyl, cycloalkenyl, heterocycle or polycycle.

8. (Original) The method of claim 1, wherein said polymer comprises one or more monomeric units represented by the following formula VII:




Formula VII

wherein, independently for each occurrence of said monomeric unit:

X1, each independently, represents -O- or -N(R7)-;

R7 represents -H, aryl, alkenyl or alkyl;

L1 represents any chemical moiety that does not materially interfere with the biocompatibility of said polymer;

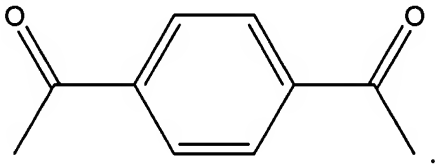
R8 represents -H, alkyl, -O-alkyl, -O-cycloalkyl, aryl, -O-aryl, heterocycle, -O-heterocycle, or -N(R9)R10;

R9 and R10, each independently, represent a hydrogen, an alkyl, an alkenyl, -$(CH_2)_m$-R11, or R9 and R10, taken together with the N atom to which they are attached complete a heterocycle having from 4 to about 8 atoms in the ring structure;

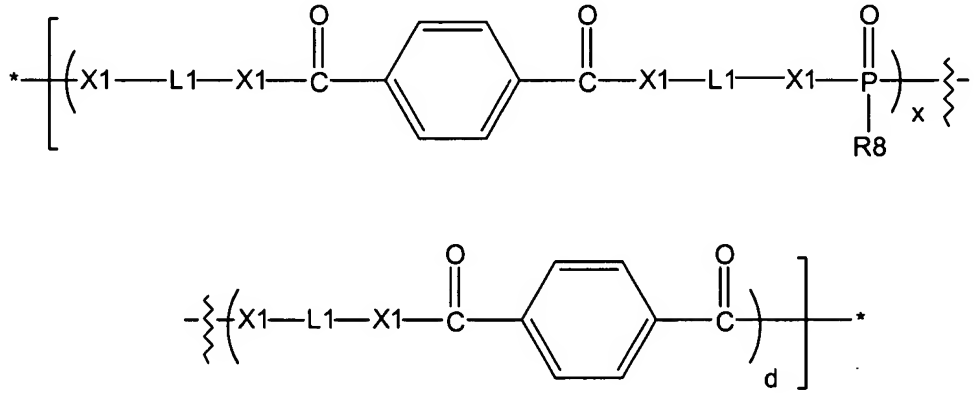
m represents an integer in the range of 0-10; and

R11 represents -H, alkyl, aryl, cycloalkyl, cycloalkenyl, heterocycle or polycycle; and

L2 represents a divalent, branched or straight chain aliphatic group, a divalent cycloaliphatic group, a phenylene group, or a group of the formula:



9. (Original) The method of claim 1, wherein said polymer comprises one or more monomeric units represented by the following formula VIII:



Formula VIII

wherein, independently for each occurrence of said monomeric unit:

X1, each independently, represents -O- or -N(R7)-;

R7 represents -H, aryl, alkenyl or alkyl;

L1 represents any chemical moiety that does not materially interfere with the biocompatibility of said polymer;

R8 represents -H, alkyl, -O-alkyl, -O-cycloalkyl, aryl, -O-aryl, heterocycle, -O-heterocycle, or -N(R9)R10;

R9 and R10, each independently, represent a hydrogen, an alkyl, an alkenyl, -$(CH_2)_m$-R11, or R9 and R10, taken together with the N atom to which they are attached complete a heterocycle having from 4 to about 8 atoms in the ring structure;

m represents an integer in the range of 0-10;

R11 represents -H, alkyl, aryl, cycloalkyl, cycloalkenyl, heterocycle or polycycle; and

d is equal to one or more and x is equal to or greater than one.

10. (Original) The method of claim 1, wherein said composition provides extended release of said antineoplastic agent into said anatomic area.

11. (Original) The method of claim 10, wherein, for a period of at least seven days, the rate of release of said antineoplastic agent is approximately constant.

12. (Original) The method of claim 1, wherein said composition releases a therapeutically effective amount of said antineoplastic agent over at least about thirty days after said instillation.

13. (Original) The method of claim 1, wherein said anatomic area is on the brain side of the blood brain barrier.

14. (Original) The method of claim 1, wherein said composition is at least about 10 percent more effective in treating said central nervous system neoplasm than administration of said antineoplastic agent formulated in a pharmaceutically acceptable carrier without said polymer.

15. (Original) The method of claim 1, wherein said method increases the median survival rate from said central nervous system neoplasm by at least about 10 percent as compared with the median survival rate obtained by administration of the same effective dosage of said antineoplastic agent without said polymer.

16. (Original) The method of claim 15, wherein said antineoplastic agent is paclitaxel and said antineoplastic agent without said polymer is formulated in 50 percent CREMOPHOR EL and 50 percent dehydrated alcohol.

17. (Original) The method of claim 1, wherein said composition increases the median survival rate for a three year period from said central nervous system neoplasm by at least about 50 percent as compared with the median survival rate obtained by administration of a composition comprising the same effective dosage of said antineoplastic agent formulated in a pharmaceutically acceptable carrier.

18. (Original) The method of claim 1, wherein said composition reduces the number of hypersensitivity reactions obtained upon administration of said composition by at least about 10 percent as compared with the number of hypersensitivity reactions obtained by administration of a composition comprising the same effective dosage of said antineoplastic agent formulated in a pharmaceutically acceptable carrier and without premedication.

19. (Original) The method of claim 1, further comprising treating said patient with electromagnetic radiation.

20. (Original) The method of claim 19, wherein said treatment with electromagnetic radiation occurs only before said instillation of said composition.

21. (Original) The method of claim 19, wherein said treatment with electromagnetic radiation occurs only after said instillation of said composition.

22. (Original) The method of claim 19, wherein said treatment with electromagnetic radiation occurs before and after said instillation of said composition.

23. (Original) A composition, comprising: a biocompatible polymer and a therapeutically effective amount of an antineoplastic agent, wherein said composition is suitable for administration to a patient, said composition is in at least partial contact with an anatomic area affected with a central nervous system neoplasm, and said polymer comprises phosphorous-based linkages.

24. (Canceled).